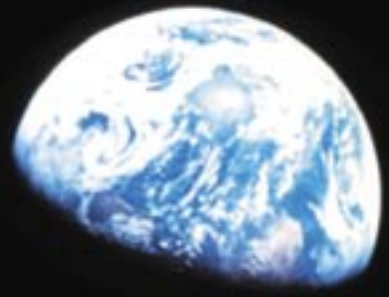
National Aeronautics and Space Administration

NASA 2006 BLUE MARBLE
AWARDS CEREMONY



Awards Ceremony

June 5, 2006

Portland, Oregon

www.nasa.gov

NASA 2006 Blue Marble Awards Ceremony

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NASA's Office of Infrastructure and Administration, Environmental Management Division (EMD), Headquarters, has initiated an annual Environmental & Energy Awards Program, also known as the NASA Blue Marble Awards. This is the first year a call for nominations was made, and EMD was pleased with the quality and quantity of response.

The program recognizes excellence demonstrated in environmental and energy management in support of NASA's mission. The program includes three award categories: 1) NASA Environmental Quality, 2) NASA Excellence in Energy and Water Management, and 3) NASA Director's Environment and Energy Award.

1. NASA Environmental Quality Award

This award provides for one individual award and one group award based on accomplishments made in greening the government, environmental management, conservation, environmental remediation, or environmental communication.

2. NASA Excellence in Energy and Water Management Award

This award provides for one individual award and one group award based on accomplishments made in energy efficiency, water conservation, or renewable energy.

3. NASA Director's Environment and Energy Award

This award provides for the Director of EMD, James Leatherwood, to recognize exceptional leadership and professionalism in implementing NASA's mission and vision of "understanding and protecting the home planet" and "improving the quality of life on Earth." This year, Mr. Leatherwood will present this award to two individuals and one group.

It is with pleasure that EMD announces the recipients of the 2006 Blue Marble Awards. EMD wishes to congratulate all the programs and projects that were nominated. The fact that they were nominated by their Center Director demonstrates the outstanding environmental and energy management accomplishments NASA made in 2005. We look forward to continuing this program annually.

Please join us in congratulating the 2006 award winners showcased in this Awards Ceremony program.

Olga M. Dominguez
NASA Environmental Executive and
Acting Assistant Administrator
Office of Infrastructure and Administration

James Leatherwood
Director
Environmental Management Division

Category I

NASA Environmental Quality Group Award

Shuttle Environmental Assurance (SEA) Team

Marshall Space Flight Center

Steve Glover, Team Lead

NASA Team Members

Dave Armstrong, MSFC
David Amidei, HQ
Steve Androlake, MSFC
Bill Bihner, HQ
Michael Blotzer, SSC
Christina Brown, MSFC
Francis Celino, MAF
Marceia Clark-Ingram, MSFC
Denise De La Pascua, MSFC
Darrell DeWeese, MSFC
Jennifer R. Hawkins, MSFC
Julie Henkener, JSC
Steven G. Holmes, MSFC
Amy Houts-Gillfriche, KSC
Melonee Jo Kines, JSC
Richard Leonard, MSFC
Jim McEuen, MSFC
Pat McLaughlan, JSC
Leslie McNutt, MSFC
Mike Morelan, MSFC
Hein Nguyen, MSFC
Kenneth I. Poast, JSC
Robert F. Speece, MSFC
Steve Schmieder, MSFC
Sharon Scroggins, MSFC
Erica Sullivan, JSC
Vaughn Yost, MSFC

Additional Team Members

United Space Alliance (18)
Air Force Space Command (1)
Pratt-Whitney Rocketdyne (5)
Lockheed Martin Space Systems Company (4)
International Trade Bridge, Inc. (4)
Hamilton-Sunstrand Space Systems International, Inc. (3)
Boeing (3)
ATK-Thiokol (6)

HQ= NASA Headquarters
JSC= Johnson Space Center
KSC= Kennedy Space Center
MAF= Michoud Assembly Facility
MSFC= Marshall Space Flight Center
SSC= Stennis Space Center

Shuttle Environmental Assurance (SEA) Team 2005 Accomplishments

The Shuttle Environmental Assurance (SEA) Initiative is a Space Shuttle Program (SSP) team working together to promote environmental excellence, proactively identify environmental regulations and other potential drivers of materials obsolescence, and facilitate cost-effective mitigation of resulting risks. SEA is composed of representatives of the SSP flight and ground operations elements and contractors, and other organizations with expertise in environmental regulations and impacts, pollution prevention, and materials-replacement technologies.

Through participation in SEA, the Space Shuttle Elements (External Tank, Orbiter, Reusable Solid Rocket Motors, Solid Rocket Booster, and Space Shuttle Main Engines) and other SSP organizations (Ground Operations, Flight Crew Equipment, etc.) work together to identify replacements for materials such as ozone-depleting compounds (ODCs), hazardous air pollutants (HAPs), volatile organic compounds (VOCs), and toxic metals. SEA members exchange information and data on pollution prevention and materials replacements and interface with other agencies and industry groups. Through participation in SEA, the SSP elements share information with the NASA Acquisition and Pollution Prevention Office, the NASA Principal Center for Clean Air Act Regulations, the NASA Headquarters Environmental Management Division, the interagency Joint Group on Pollution Prevention, the Headquarters Air Force Space Command, and the U.S. Army Aviation and Missile Command Environmental Division at Redstone Arsenal.

The SEA team has provided data, lessons learned, and recommendations to the Constellation Programs based on the team's experience in addressing environmentally driven obsolescence and regulatory threats to the SSP. In 2005, SEA flagged several materials as having potential issues for new vehicles. For example, they have recommended that ODCs; heavy metals such as hexavalent chromium, adhesives and coatings with high VOCs; and brominated flame retardants be avoided or, where necessary, their use be proactively negotiated with regulatory agencies. EMD hopes that new programs plan and design for environmental sustainability and environmental requirements and establish a working group composed of environmental and materials experts similar to the SEA model.

Category I

NASA Environmental Quality Individual Award

Calvin Williams
Facilities Program Manager
Facilities Engineering and Real Property Division
NASA Headquarters

Championing NASA's Green Building/Sustainable Design Standards

Calvin Williams
Championing NASA's Green Building/
Sustainable Design Standards
2005 Accomplishments

Mr. Williams was selected to receive a Blue Marble Award for serving as NASA's "green buildings" and "sustainable design" champion. He demonstrated excellence in environmental leadership by instituting a program to construct high-performance, sustainable buildings throughout NASA. Specifically, Mr. Williams established a Leadership in Energy and Environmental Design (LEED) certification program, setting policy and conducting training to permeate this best practice throughout the Agency's facilities construction program. His accomplishments had Agencywide impact, and fully supported the Agency's vision and mission.

Due to Mr. Williams' personal efforts to produce sustainable "green buildings," NASA adopted the concept of Sustainable Design as a best practice in the delivery of design and construction services for facilities Agencywide. Mr. Williams led the effort to issue policy directing NASA facilities to incorporate Sustainable Design principles into facility projects to the maximum extent possible. He also took the program a step further by issuing policy that directs all new construction and major renovations starting in fiscal year 2006 to obtain silver certification under the LEED Green Building Rating System. NASA was the first federal agency to set such a policy.

Energy Management Team
Marshall Space Flight Center
Robert T. Mathis, Team Lead

Team Members
Timothy D. Austin, Mainthia
Richard C. Brunell, MSFC
John A. Busbey, MSFC
Timothy A. Corn, MSFC
Cedrick G. Davis, MSFC
Clayton D. Dayton, RW Beck
Dennis C. Foster, MSFC
James Guarin, MSFC
Norman D. Hawes, MSFC
Phillip M. Henderson, MSFC
Juergen Haukohl, SEI
Mike Leonard, Thomas, Miller & Partners, LLC
Gerald P. Stricklin, MSFC
Wade Robinson, Mainthia
Jim A. Wingerd, RW Beck

Energy Management Team
Marshall Space Flight Center
2005 Accomplishments

Marshall Space Flight Center (MSFC) has demonstrated environmental leadership while carrying out NASA's primary mission through its Energy Management Team (EMT) by developing and implementing a detailed five-year Energy and Water Management Plan. Since 2001, MSFC has invested a minimum of $1 million annually to implement this plan and has incorporated Leadership in Energy and Environmental Design (LEED) standards into all MSFC projects. Implementation of the plan is overseen by the EMT, an integrated team with members from Facilities Planning, Design, Construction, and Operations and Maintenance. This team's efforts have resulted in significant cost reductions to the energy budget and notable contributions to the improvement of the environment of the overall community.

The showcase example of energy conservation at MSFC is Building 4600, a five-story, 139,000-square-foot office building. Building 4600 was completed in August 2005 and received a LEED Silver rating in January 2006, the first LEED certification received by NASA. This building uses only 47 percent of the average energy used in the conventionally designed buildings. The implementation of innovative water conservation measures results in saving over 3.5 million gallons of potable water per year—a projected annual cost savings for FY06 of approximately $19,000.

Category II

Excellence in Energy & Water Management Individual Award

Larry A. Viterna, Ph.D.
Glenn Research Center

Enabling Increased Efficiency of Wind Tunnels and Renewable Wind Energy Systems

Accomplishments of Larry A. Viterna, Ph.D.
Glenn Research Center

Enabling Increased Efficiency of Wind Tunnels and Renewable Wind Energy Systems

Dr. Viterna developed a research design method for rotor aerodynamics that has been used to dramatically improve the efficiency of a NASA wind tunnel, and last year, the method was also adopted into an international design code for a renewable wind energy system. Performance and critical design loads for such systems require accurate airfoil lift and drag information over the full range from a zero- to 90-degree angle of attack. Wind-tunnel data is almost never obtained for the angles of attack greater than 20 degrees in research design tests because of the complex flow in the stalled condition. This lack of understanding of the aerodynamic behavior can result in errors of up to 100 percent of peak power performance and structural loads. Dr. Viterna's method provides a general approach for designing aerodynamic systems under these conditions. This method was used to increase the maximum wind speed from 229 to 430 mph while retaining the same power electric motor for the NASA Glenn Icing Research Tunnel.

Dr. Viterna received a major Space Act Award from the NASA Office of Chief Engineer for this effort in January 2006. The method was extensively reviewed at the 2005 American Institute of Aeronautics and Astronautics Sciences meeting, and the Department of Energy's National Renewable Energy Laboratory (NREL) integrated Dr. Viterna's method into its industry design code. In August 2005, NREL issued a major press release stating the design code that includes Dr. Viterna's method can now be used for worldwide certification of wind turbines.

Category III

NASA Director's Environmental & Energy Group Award

Clean Air Act (CAA) Principal Center Team

Marshall Space Flight Center

Sharon T. Scroggins, Team Lead

Team Members

Rachel Carlson, CH2M Hill

Kristen Cole, CH2M Hill

Gail Grafton, CH2M Hill

Clean Air Act (CAA) Principal Center Team
Marshall Space Flight Center
2005 Accomplishments

The Marshall Space Flight Center was selected by NASA Headquarters Environmental Management Division to serve as the lead Principal Center for Clean Air Act (CAA). The Principal Center supports and assists NASA Headquarters in managing NASA's review of the Environmental Protection Agency (EPA) emerging CAA regulations and related policies and requirements that may impact NASA program and supporting facilities. The CAA Principal Center provides environmental leadership in the continuation of the Space Shuttle Program (SSP), and is examining environmental issues and approaches as the Agency plans for the design and execution of future space vehicle programs.

The CAA Principal Center Team led the efforts to track and document NASA's reduced overall annual ozone depleting substance (ODS) usage from over 3.5 million pounds to less than 150,000 pounds, which is a reduction of greater than 96 percent over 15 years. Stored hydrochlorofluorocarbon (HCFC) 141b carries risks of instability and impurity that are unacceptable to the SSP, so continued production of this banned substance is essential to NASA.

In the fall of 2005, Michoud Assembly Facility (MAF) was directly impacted by Hurricane Katrina and power outages resulted in the temporary loss of the generator power supply. As a result, the temperature of the stored HCFC 141b increased, rending 3955 kg of HCFC 141b inadequate for use on the External Tank. The Principal Center notified the EPA, who modified NASA's exemption to allow for the procurement of 1,500 kg of HCFC 141b beyond the original 2005 allowance, allowing NASA to continue to meet production needs. The EPA provided the written authorization on the same day that the Principal Center submitted its written request.

The CAA Principal Center team also provided time-critical verification of emissions limits and exemptions for a surface coating facility in New York that was preparing to coat the Orbiter repair boom. Its timely action allowed for the continuation of manufacturing activities without impact to NASA's launch schedule. Additionally, this team provides support to the Centers, reminding them of upcoming compliance deadlines and providing responses to questions about the CAA regulations.

Category III

NASA Director's Environmental & Energy Individual Award

Burton R. Summerfield
Kennedy Space Center

Outstanding Environmental Leadership

Burton R. Summerfield
Outstanding Environmental Leadership
2005 Accomplishments

Fiscal Year 2005 was Burt Summerfield's last year directing the Kennedy Space Center's (KSC) Environmental and Energy Programs. Mr. Summerfield's career at KSC spans more than 20 years, serving in various capacities in Safety, Health, Environmental, and Energy Programs. Throughout his career, but especially in 2005, Burt demonstrated courage and leadership in ensuring that environmental and energy issues were appropriately evaluated and integrated with the urgency of mission operations.

The environment at KSC provides some of the greatest challenges in any NASA operational setting. It is situated in the middle of over 140,000 acres designated as the Merritt Island National Wildlife Refuge (MINWR). Only 6,500 acres of this area are dedicated to operations. There are over 38,000 acres of wetlands and the area is home to 25 threatened and endangered species, which is the highest biodiversity of any Federal facility located with the continental United States.

Mr. Summerfield's exceptional communication and leadership skills have enabled his office to address complex and controversial challenges. Examples of 2005 accomplishments that can be directly credited to his leadership include: development and implementation of a KSC Environmental Management System plan and policy concerning disposal of Polychlorinated Biphenyl (PCB) Bulk Waste materials generated by demolition activities; completion of remediation activity to remove hazardous soil from a former recreational gun range; completion on schedule of Launch Umbilical Tower 1 dismantling, decontamination, and disposition (recycled), despite international controversy and three hurricanes, and; implementation of an environmental training effort directed towards Construction of Facilities (CofF) activities at KSC to address risk of noncompliance.

Category III

NASA Director's Environmental & Energy Individual Award

Sandy Olliges

Ames Research Center

Outstanding Environmental Leadership

Sandy Olliges
Outstanding Environmental Leadership

Sandra Olliges has been an employee of the NASA Ames Research Center (ARC) Safety, Environmental, and Mission Assurance Directorate since 1988. She is currently serving as the Deputy Director of this directorate, as well Acting Chief of the Environmental Services Division. Ms. Olliges has demonstrated exceptional leadership in implementing NASA's mission and vision at NASA ARC. She makes apparent to all who work for her that effective stewardship of the environment is a personal belief, not merely a job function. She inspires others to follow her by example, and has earned the respect of her peers.

As examples of her ongoing leadership with the Division and Centerwide, in 2005, Ms. Olliges set a new standard in the environmental community for comprehensive indoor air testing. Over 1,500 air samples were collected within several buildings located above a contaminated groundwater plume. This level of sampling activity is unprecedented in contemporary facilities management and eliminated the need for modeling.

Another example of Ms. Olliges's forethought in leading NASA is her creation of a group within the Environmental Services Division that is devoted to sustainability. This group's charter is to educate and influence Centerwide changes that will support environmental sustainability. This group now proactively influences positive environmental change for improving energy efficiency, use of bio-based products, and use of green building and recycle-content products.

Ms. Olliges continually demonstrates leadership within the surrounding community as well. She has played an active role in local organizations such as the South Bay Salt Pond Restoration Project—the largest wetlands restoration project on the west coast. She has also served as the liaison between NASA ARC and the U.S. Navy in addressing clean-up plans for Hanger 1, and has hosted stakeholder meetings where she communicated alternatives to local interest groups.

Operating with the Environment in Mind.

Special thanks to NASA's 2006
Blue Marble Awards Selection Committee at
NASA Headquarters:

James Leatherwood
Selection Committee Chair
Director EMD

Jean Bianco
Deputy Director
Mission Support
Aeronautics Mission Directorate

Austin Evans
ASCT Program Manager
Exploration Systems Mission Directorate

Ron Birk
Director Applied Sc. Programs
Science Mission Directorate

Sharon Wagner
Equal Opportunity Manager
Diversity and Equal Opportunity

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